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CIA-RDP86-00513R001963710001-3



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CIA-RDP86-00513R001963710001-3"

Begin reel  
# 691

An investigation of conditions for tempering in lead baths. M. A. Leonov and R. F. Zaitseva. *Antistress* 1939, No. 1, 35-7; *Khim. Referat. Zhur.* 1939, No. 11, 82.  
The utilization of a protective layer composed of a mixt. of salts for the lead tempering baths was investigated. This layer of salts protected the tempered objects from adherence of Pb and of its oxides. Optimum results were obtained from mixts. consisting of 50% NaCl + 50% KCl and 50% NaCl + 50% CaCl<sub>2</sub>. The thickness of the layer of salt was 20-30 mm. Steels 1040 and 5140 tempered after heating in Pb and in salt baths were equally hard. The rate of heating in a Pb bath was greater than in either the salt bath or the furnace. W. R. Henn

W. R. Henna

### ASB.3.1 METALLURGICAL LITERATURE CLASSIFICATION

100-100000

14-00000

SECTION 419 CIV JAC

011137 ON 2

2134 834617

83111 OK 047 11

ZALETAYEVA, R. P.

"Effect of Nitrogen and Calcium on the Properties of Austenitic Steel of the EI-395 Type." Sub 23 Apr 51, Central Sci Res Inst of Technology and Machine Building (TsNIITMash)

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

ZHELEZAYA, R. V.

\*New Intermediate Compound in the Binary System Fe-V

Schubert, R. P., Zhelezaya, N. P., Lashko, M. D.

Zhelezaya and S. A. V. Zhelezaya, Izv. Akad. Nauk S.S.S.R.,

Met. Sci. Ser. 11, 115-116 (1972) (in Russian). By analogy with

the Fe-Mo system, a new phase was found in the Fe-V

system. This phase has been observed to separate after the

quenching of the Fe-V alloy from the liquid state. The

phase is characterized by a hexagonal lattice with parameters

$a = 4.73$  and  $c = 7.72$  Å. The phase is probably formed

by diffusion after conversion of the Fe into Fe<sup>2+</sup>.

The phase was observed after X-ray examination

of the powder separation of the alloy from specimens

quenched from 1200°C. and annealed for 600-1000 hr. at

600°C. or 200-1000 hr. at 750°C. At 700°C. the Fe-Mo

phase first appeared after 100 hr., and at 800°C. after 6 hr.

The crystal structure of the phase was completely analogous

to that of Fe<sub>2</sub>V: a hexagonal lattice with parameters

$a = 4.73$  and  $c = 7.72$  Å. These phases are probably formed

G. V. E. T.

ZALETAYEVA, R. P.

(4)  
Melting austenitic chromium-nickel steels alloyed with nitrogen. V. I. Prosvirin, V. S. Kreshchenovskii, and R. P. Zakletayeva. *Zhurnal Prikladnoi Metallovedeniya* 1952, No. 9, 22-3.  
In order to test how much N<sub>2</sub> the steel will hold in soln. after solidification, a series of heats was melted under the same conditions, varying only the quantity of N-bearing FeCr added in small portions under the slag at 1320-1540°. The metal was then analyzed for N<sub>2</sub> and the results were compared with the amt. actually added. A 15-17% Cr steel can hold a max. of 0.28% N<sub>2</sub>, the gas in excess of this percentage escaping on solidification. Holding portions of the same heat (contg. 28% N) in the molten state at 1400-1600° for 5 to 30 min. showed that this practice reduces the gas concn., a 6-min. heating lowering the concn. gradually to 0.23% N<sub>2</sub> at 1600° and both 20- and 30-min. heatings dropping it rapidly on holding at 1400° to 0.22-0.23 and then slowly to 0.21% N<sub>2</sub>.

J. D. Gat



ZALETAYEVA, R. P.

B. T. R.

June 1954

Metals-Metallurgy, Transformations,  
and Structures

1898 Effect of Magnesium on Surface Tension, Supercooling, and Crystallization of Austenitic Steel. N. S. Kravchenkovskii and R. P. Zaletaya. *Novyi Zhurnal*, Alameda, Calif., Translation no. 8135. (From *Litening Preizvodstva*, v. 4, no. 3, 1953, p. 20-21.)

Experimental study of influence of Mg additions ranging from 0 to 0.50%. Graphs, micrographs. 4 ref.

ZALETAYENA, R. P.

Journal of Applied Chemistry  
March 1954  
Industrial Inorganic Chemistry

*(1) M. A.*  
Chromium-nickel steels alloyed with nitrogen. *St. H. Polakowski*  
(*Metal Progr.*, 1953, 83, No. 8, 170-172).—A digest of a paper  
by V. I. Prosvirina, N. S. Krishitskii, and R. P. Zaletayena  
(*Lit. Prosvetno*, 1953, 9, 22) is presented. N is introduced as  
nitrided ferrochrome (C 0.04%, Cr 15%, N 2-3%) into a steel  
containing C 0.1%, Cr 17%, and Ni 10% when melted in an induc-  
tion furnace at ~1530°. With the N content of the bath ranging  
from 0.5 to 1.5%, ~0.3% of the N is retained in solid solution in  
the alloy; higher N content in the bath causes porosity in the solid  
ingot. For steels containing 15-17% of Cr the optimum N  
content of the bath is 0.15-0.20%. In melting practice temp.  
variations from 1333° to 1549° and heating durations up to 30 min.  
do not lead to a significant loss of N in the metal.

C. W. MORLEY

ZALETAEVA, R. P.

(3)

5

Influence of nitrogen on the surface tension and crystallization of austenitic steels. N. S. Kreshchanyovskii, V. I. Prosvirin, and R. P. Zaletayeva. Litetskoe Proizvodstvo 1954, No. 1, 23-4. — At the point of solidification, solid nuclei of crystn. form in a molten metal, and surface-active elements gather on the surface of these solid particles interfering with the further growth of the nucleus, which leads to grain refinement of the metal. Lowering of the surface tension favors the formation of crystn. nuclei. The effect of 0.02 to 0.23% N<sub>2</sub> on surface tension of an austenitic 15% Cr-20 Ni-6 Mo steel was measured by the gas-bubble method at 1490-1510° and showed that surface tension increased from 1112 to 2450 dynes/sq. cm. with the higher N<sub>2</sub> content. Casting stepped samples of this steel with and without 0.20-0.23% N<sub>2</sub> at the same temp. and in the same mold and then sectioning them axially showed that N<sub>2</sub> has no effect on the primary crystn. J. D. Cat

...the decomposition of austenite in steel containing 0.8% carbon and 0.2% manganese. The decomposition of austenite in steel containing 0.8% carbon and 0.2% manganese is shown as a function of time and temperature. The diagram shows that austenite is stable at low temperatures and high temperatures, but decomposes at intermediate temperatures. The decomposition of austenite is a function of time and temperature, and the diagram shows that austenite is stable at low temperatures and high temperatures, but decomposes at intermediate temperatures.

ЛАЛЕТАYEVA, K. T.

Journal of Applied Chemistry

June 1951

Industrial Inorganic Chemistry

Effect of magnesium on the surface tension, supercooling, and crystallization of austenitic steel. N. S. Kreshchinskii and K. F. Laleteva (*Litovsk Proizvodstvo*, 1950, 8, No. 3, 70-71). English. A theoretical discussion of the effect of Mg on surface tension and crystallization processes of austenitic steel. Experiments are described in which it was shown that the corresponding decrease in surface tension leads to easier formation of centres of crystallization and a lesser tendency to supercooling. Specimens of an austenitic Cr-Ni steel (15% Cr, 10% Ni) with different amounts of Mg were used. At 1420-1430° surface tension displayed a min. at 0.2% of Mg. The effect of Mg on the primary crystallization of the steel is illustrated, and heating and cooling curves for the solidification range are given; these reveal the complete disappearance of supercooling when the steel contains 0.2% of Mg. J. Iron Steel Inst. (Lond.)

AUTHOR: Zaletayeva, R.P., Candidate of Technical Sciences. 129-9-7/14  
TITLE: Influence of inoculation with lithium on the properties of  
austenitic steel. (Vliyaniye modifitsirovaniya litiiyem  
na nekotorye svoystva austenitnoy stali).

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and  
Metal Treatment), 1957, No.9, pp.25-27 (U.S.S.R.)

ABSTRACT: Data are given on the influence of lithium inoculation  
on the properties of austenitic steel 3M257 and the  
possibility is pointed out of utilising lithium as an  
inoculating medium. Since difficulties were encountered  
with introducing lithium into the liquid steel it was  
introduced in the form of an alloy and an Fe-Si-Li alloy  
proved the most suitable. The effectiveness of metallic  
lithium and lithium introduced as an alloy proved approximate-  
ly equal. The lithium was introduced into the steel in  
quantities of 0.01-0.02, 0.03-0.05 and 0.1% and its influence  
was studied on the macro and the microstructure, on the gas  
saturation, on the total quantity of non-metallic inclusions,  
on the metal density, on the ability of the metal to deform  
at elevated temperatures, on the mechanical properties at  
normal and elevated temperatures and on the high temperature  
strength. The results are entered in tables and one graph.

Card 1/2

Influence of inoculation with lithium on the properties of  
austenitic steel. (Cont.) 129-9-1/14

It was found that lithium inoculated steel has a higher  
ductility and a slightly higher strength and ultimate strength  
than non--inoculated steel but this has no influence on the heat  
resistance at 900 and 1100 C.  
There are 3 tables and 1 graph.

ASSOCIATION: TsNIITMASH.

AVAILABLE:

Card 2/2

MIRKIN, I.L.; ZALETAYEVA, R.P.; TERESHKOVICH, A.S.

Phase constitution and properties of complex alloy austenitic steels.  
Issl. po zharoproch. splav. 10:149-156 '63. (MIRA 17:2)



EE 14

S/2659/63/010/000/0149/0156

ACCESSION NR: AT4013941

AUTHOR: Mirkin, I. L.; Zaletayeva, R. P.; Tereshkovich, A. S.

TITLE: Phase composition and properties of complex-alloyed austenitic steels

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam, v. 10, 1963, 149-156

TOPIC TAGS: steel, austenite steel, complex alloyed austenite steel, alloy steel phase composition, alloy steel physical property, heat resistant steel

ABSTRACT: The austenitic heat-resistant steels used at the present time contain, as a rule, small quantities (up to 0.15%) of carbon. The most frequently used alloying elements are titanium, niobium and aluminum (up to 1%), and molybdenum and tungsten (2-3%). This article discusses the results of a study of two groups of austenitic steels with a basis of Fe + 16% Cr + 25% Ni plus a C content of either 0.25-0.30%, alloyed with 3-9% W, or up to 0.10% C, alloyed with an increased quantity of aluminum (up to 5%). All the investigations were made on cast metal after tempering from 1200C and drawing at 800C for 10 hours. The change in the phase composition of the alloys was determined by roentgenography. The results of a roentgenostructural analysis of electrolytically separated precipitations are discussed. The hypothesis is advanced that the solubility of tungsten in the solid

ACCESSION NR: AT4013941

FEW

solution of such alloys is lower than in similar alloys without manganese, and that the formation of the intermetallide  $Fe_2W$ , containing a large amount of tungsten, will be facilitated. As the tungsten content increased, there was an increase in the strength properties at normal and high temperatures, and a decrease in plastic characteristics and impact ductility. It was found, with reference to this first group of austenitic steels, that there is a change in the phase composition both in the initial state (the appearance, in addition to carbide  $Me_{23}C_6$ , of double carbide  $M'_nM''_nC$ ) as well as with aging (the earlier occurrence of the intermetallide  $AB_2$ ). For the second group, the authors investigated the effect of aluminum on the process of the formation of intermetallide phases in austenitic steel of the following composition: 0.10% C, 14-16% Cr, 25-30% Ni. The aluminum concentration in the alloys varied from 1.5 to 5%. A study was made of the hardness, microstructure, mechanical properties and phase composition after tempering in a temperature range of 900-1300C. A magnetic analysis was also made which showed that the intermetallide  $Ni_3Al$  in steels with 1.5 and 3% Al has extremely low magnetic properties. In conclusion it was found that: 1) a change in the aluminum content in steel containing 15% Cr, 30% Ni and 50-55% Fe is accompanied by the formation of various types of strengthening phases. In a steel alloy containing up to 3% Al, the basic strengthening phase is  $\gamma(Ni_3Al)$ , while in a 5% Al concentration, the excess phase is a complex intermetallide compound which is, apparently, a solid solution of  $NiAl$  and  $FeAl$ ; 2) this phase ( $NiAl$ ,  $FeAl$ ) per se,

Card 2/3

ACCESSION NR: AT4013941

and also the steel in which it is the leading strengthening phase, differs substantially in its properties from steels containing up to 3% aluminum; 3) the specific properties of this phase call for the further investigation of high-aluminum steels in the development of new compositions of heat-resistant austenitic steels. "Changes in the phase composition during prolonged storage of the alloys at 750C were determined roentgenographically by Engineer M. O. Nesterova." Orig. art. has: 4 tables and 4 graphs.

ASSOCIATION: TsNII TMASH (Central Scientific Research Institute of Machinery)

SUBMITTED: 00

DATE ACQ: 27Feb64

ENCL: 00

SUB CODE: ML

NO REF SOV: 002

OTHER: 002

Card 3/3

ZALETAYEVA, B.P., kand.tekhn.nauk; Prinimala uchastiye: BELONA, G.A.,  
tekhnik

Properties of cast, nickel-base, heat-resistant alloys. [Trudy]  
TSNIITMASH 105:165-175 '62. (MIRA 15:8)  
(Nickel alloys--Thermal properties)

S/590/62/105/000/012/015  
1031/1231

AUTHOR: Zaletayeva, R.P., Candidate of Technical Sciences

TITLE: Creep resistance of ЭИ 211 (EI 211) steel alloyed with titanium and niobium

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. Trudy. v.105, 1962, 176-183

TEXT: The investigation was carried out on specimens prepared from ЭИ 211 (EI 211) steel with normal composition; with 0.4-0.5% titanium added; and with 1.0% niobium added. The specimens were heat-treated and tested at 550, 600, 650 and 700°C.

Card 1/2

S/590/62/105/000/012/015  
I031/I231

Creep resistance of...

The addition of 0.5% titanium did not change the creep behavior but the steel, alloyed with niobium showed a marked improvement in creep resistance. This is explained by formation of a NbC phase and an intermetallic, highly dispersed Laves phase  $M_a(M_b)_2$ . The  $M_a(M_b)_2$  phase probably contains niobium, silicon, iron and chromium. There are 6 figures and 4 tables.

Card 2/2

ZALETAYEVA, R.P., kand.tekhn.nauk

Changes in the properties of nickel-base foundry alloys during  
electric slag refining. [Trudy] TSNIITMASH 105:184-189 '62.  
(MIRA 15:8)

(Nickel alloys--Electrometallurgy)

ZALETAYEVA, R.P., kand.tekhn.nauk

Results of long-time testing of cast nickel alloys at 800°  
temperatures. [Trudy] TSNIITMASH 101:205-209 '61.

(MIRA 14:11)

(Nickel alloys--Testing) (Metals at high temperatures)



18.1250

28838  
S/590/61/101/000/014/015  
D217/D304

AUTHOR: Zaletayeva, R.P., Candidate of Technical Sciences

TITLE: Results of prolonged testing of cast nickel alloys  
at a temperature of 800°

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya. [Trudy], v. 101, 1961. Issledovaniye novykh zharoprochnykh splavov dlya energetiki, 205 - 209

TEXT: The alloy A has been thoroughly studied by a number of Research Institutes and industrial organizations within the last 5 or 6 years. The present composition of the alloy ensures high refractory properties and hence this alloy is widely used in industry for short-term service (100-300 hours). The high refractoriness of this alloy (which contains relatively cheap alloy components) is of interest with a view to using it for more prolonged service than in the case in aviation. For this purpose, its properties, and those of alloy B(B), were studied under conditions

Card 1/2

28888

S/590/61/101/000/014/015  
D217/D504

Results of prolonged testing ...

of prolonged soaking at high temperatures, alloy B being a modification of alloy A. [Abstractor's note: Compositions of alloys A and B not given]. The results of long-term testing of cast specimens of these alloys are reported. The specimens were tempered at 1150° for 4 hours and then cooled in air. Strength-to-rupture testing was carried out at 800° by isothermally straining cylindrical specimens and periodically measuring their deformation. It was found that at 800°, the strength-to-rupture of alloy A is 19 kg/mm² in 1000 hours for precision casting and 24 kg/mm² when casting in a standard mould; for 10,000 hours it is 12 and 13 kg/mm² for precision and sand casting, respectively. Alloy B possesses higher strength-to-rupture properties at 800°, being 37 kg/mm² for 1000 hours and 16 kg/mm² for 10,000 hours. The method of casting alloy A (precision casting or sand casting) has no particular effect on the strength-to-rupture properties of this alloy. There are 4 figures and 2 tables.

X

Card 2/2

24.07.1974, R.P.

190) PAGE 1 BOOK REVISIONS 804/2103

Technical and scientific literature, mainly technical literature, is published in the USSR. The USSR is a country with a large scientific and technical potential. The USSR is a country with a large scientific and technical potential. The USSR is a country with a large scientific and technical potential.

Additional Sponsoring Agencies: USSR. Governmental planning agencies and organizations. USSR. Governmental planning agencies and organizations. USSR. Governmental planning agencies and organizations.

Editor: E. F. Petrovskaya, Candidate of Technical Sciences; Ed. of Technical Sciences; Ed. of Technical Sciences; Ed. of Technical Sciences.

PURPOSE: This book is intended for workers of scientific research institutes and for engineering staff of plant laboratories of the USSR and foreign enterprises and power stations. It may also be used by staff members of higher educational institutions studying problems of physical metallurgy.

CONTENTS: This collection of articles deals with the problems of heat resistance of materials. The articles deal with the problems of heat resistance of materials. The articles deal with the problems of heat resistance of materials.

SECTION II. ALLOYS OF HEAT-RESISTANT ALLOYS AND STEELS, MANUFACTURING PROCESSES AND HEAT TREATMENT.

1. I. L. (Doctor of Technical Sciences, and Professor), and N. I. (Candidate of Technical Sciences) of the Composition on the Structure and Properties of Heat-Resistant Alloys.

The author investigates the influence of composition of cast alloys with 25 to 30 percent nickel and approximately 25 percent chromium on the structure and properties of normal and elevated temperature. The influence of small amounts of tungsten, molybdenum, columbium, boron, vanadium and aluminum is discussed.

2. A. A. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences) of the Influence of Copper on the Structure and Properties of Heat-Resistant Alloys.

3. A. A. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences) of the Influence of Copper on the Structure and Properties of Heat-Resistant Alloys.

4. A. A. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences), and M. D. (Candidate of Technical Sciences) of the Influence of Copper on the Structure and Properties of Heat-Resistant Alloys.

Country : USSR  
 Category : Farm Animals.  
 Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96895  
 Author : Zaletayeva, T. A.  
 Institut. : Moscow Veterinary Academy.  
 Title : The Influence of a Regimen of Changing Temperatures upon the Embryonal and Postembryonal Development of Hens.  
 Orig Pub. : Avtoref. dis. kand. biol. n., Mosk. vet. akad. M., 1958  
 Abstract : In artificial incubation the regimen of changing temperatures approximates the conditions of embryonal development in natural incubation, where a periodical cooling of the eggs' surface to 30-32° [C] occurs for a period of 15-20 minutes. In the experiment, the eggs were cooled for the duration of 20-25 minutes to a temperature of 30-32° [C] on the surface (instead of 37.5°) and to an inside temperature of 34° [C] (instead of 38.5°) twice daily. The temperature

Card: 1/2

MEYERSON, F.Z.; ZALETAYEVA, T.A.; LAGUCHEV, S.S.; PSHENNIKOVA, M.G.

Correlation of the mass of energy-producing and functioning structures in the adaptation process of the differentiated cell to a prolonged increase in functional level. Dokl. AN SSSR 157 no.3:668-671 J1 '64. (MIRA 17:7)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR i Institut eksperimental'noy biologii AMN SSSR. Predstavleno akademikom A.N. Belozerskim.

ZALITAYEVA, T.A.

Correlation between the quantity of polyploid and binuclear cells of the liver in the course of 24 hours. Biul. eksp. biol. i med. 55 / i.e.56/ no.10:93-95 0'63 (MIRA 17:8)

1. Iz gruppy eksperimental'noy morfolologii kletki (zav. -kand. meditsinskikh nauk S.S. Iaguchev) Instituta eksperimental'noy biologii (dir. - prof. I.N. Mayskiy) AMN SSSR. Predstavlena deystvitel'nyy chlenom AMN SSSR N.A. Krayevskim.

ZALETAYEVA, T.A.

Some destructive and regenerative processes in the liver following starvation. Biul. eksp. biol. i med. 56 no.8:112-115 Ag '63. (MIRA 17:7)

1. Iz gruppy eksperimental'noy morfologii kletki (sav. - kand. med. nauk S.S. Laguchev) Instituta eksperimental'noy biologii (direktor - prof. I.N. Mayskiy). Predstavleno deystvitel'nym chlenom AMN SSSR V.V. Parinym.

GIBADULIN, R.A.; BELOUSOV, I.V.; SHABADASH, A.L.; YEPIFANOVA, O.I.;  
CHERIVOVA, I.A.; ZALETAYEVA, T.A.; TIKHOMIROV, V.N.

Brief news. Biul. MOIP. Otd. biol. 69 no.1:145-156 Ja-F '64.  
(MIRA 17:4)



LAGUCHEV, S.S.; MASHINSKAYA, V.N.; ORLOVA, I.I.; ZALETAYEVA, T.A.;  
BUDIK, V.M.

Pinocytosis. TSitologiya 4 no.4:381-390 J1-Ag '62. (MIRA 15:9)

1. Gruppya eksperimental'noy morfologii kletki Instituta eksperi-  
mental'noy biologii AMN SSSR, Moskva.  
(CELLS)

U

TRET'YAKOV, N.P.; ZALETAYEVA, T.A.

Effect of controlled external factors during the embryonic and postembryonic periods on the development and productivity of poultry. Trudy Inst.morf.zhiv. no.31:195-203 '60. (MIRA 13:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsevodstva.  
(Poultry) (Embryology--Birds)

ZALETAYEVA, T. A. Cand Biol Sci -- (diss) "~~The~~ Influence of the  
~~practice~~ of varying temperatures upon the embryonic and post-  
embryonic development of chickens." Mos, 1958. 21 pp. (Min Agr USSR.  
Mos Vet Acad.) 140 copies.  
(KL, 8-58, 104)

-13-

USSR / Farm Animals. Domestic Fowls

Q-6

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12178

Author : Tret'yakov N. P., Zaletayeva T. A.

Inst :

Title : The Effect of the Variable Regime of Incubation upon the Embryonic Development of Fowls (Vliyaniye peremennogo rezhima inkubatsii na embrional'noye razvitiye ptits)

Orig Pub: Probl. sovrem. embriologii, L., Un-t, 1956, 216-221

Abstract: On the first day of brooding, the temperature of the hen eggs in the center and on the periphery of the next is 39.5 and 31.9°C respectively, and on the 18th day of brooding - 38.8 and 34.0°C. Warming of the eggs is equalized when their position is changed by the brood-hen while shifting them. The effect of the variable regime of temperature upon

Card 1/2

46

ZALETAYEVA, T.A.

Regeneration of some ultrastructures of rat liver cells after prolonged starvation. TSitologiya. 6 no.3:343-345 My-Je '64.  
(MIRA 18:9)

1. Gruppya eksperimental'noy morfologii kletki Instituta eksperimental'noy biologii AMN SSSR, Moskva.

ZALETAYEVA, T.A.

Effect of cortisone on the number of binuclear and polyploid  
cells in the liver. Dokl. AN SSSR 165 no.2:421-422 N '65.  
(MIRA 18:11)

1. Institut eksperimental'noy biologii AMN SSSR. Submitted  
December 29, 1964.

ZALETET, B.V.

CZECH

Analytical Abst.  
Vol. 1 No. 1  
Jan. 1954  
Inorganic Analysis

10. Determination of micro-quantities of boron with curcumin. H. V. Zaitsev (Kee. Trav. 1953, 1, 11-12). Three new procedures for the determination of boron in the range 0.03 to 1.00  $\mu$ g with an accuracy of  $\pm 0.03 \mu$ g based on the curcumin salicylic acid complex are given. An intense scarlet-red colour of the complex in the presence of paraffin is reported; also reported is a new micro method based on photo-electric measurement of the blue colours appearing after addition of alkali to the curcumin salicylic acid complex with B. Boron contents ranging from  $1.5 \times 10^{-4}$  to  $5 \times 10^{-4}$  g of B per ml with an error of 2 to 3 per cent. are estimated by this reaction, which is entirely specific for boron. The mechanism of the reaction is studied. A plot of curcumin against colour intensity shows steps. The addition of more curcumin increases the colour intensity in steps rather like polarographic steps corresponding to ratios 1 : 6, 1 : 10, 1 : 12 of molecules of boric acid to curcumin; these steps are independent of the conductivity and pH of the solution. A maximum of 0.000516 g of curcumin is needed for 3  $\mu$ g of boron. Increase in salicylic acid concentration leads to increase in colour intensity, which reaches a maximum and then decreases. Increase in amount of HCl gives a decrease in colour intensity. For 3  $\mu$ g of boron, 0.000516 g curcumin, 0.0018 g salicylic acid and 0.03 ml ( $1 \times 10^{-4}$  moles) of HCl (2 + 1) represent optimal quantities.

W. M. N. 1

Z. LEPEL, B.V.

"Rapid determination of ash content in petroleum products." p. 48. (NAFTA, Vol. 4, no. 2, Feb. 1953, Zagreb.)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress  
August, 1953, Uncl.



S/137/61/000/012/025/149  
A006/A101

**AUTHORS:** Kuznetsova, L. S., Zaletkina, M. Yu.

**TITLE:** Investigating the dressing ability of titanium-zircon sands of one of the Ukrainian deposits

**PERIODICAL:** Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 8, abstract 12058 ("Tr. Tsentr. n.-i. gorno-razved. in-ta", 1960, no. 39, 40)

**TEXT:** The sands are represented by ilmenite (5.14%), zircon (0.79%); the dead rock consists of quartz. The basic sand mass is concentrated in the -3+0.15mm class. The possibility was established of obtaining satisfactory results of concentration with the aid of the gravitation methods. Best results are obtained with dressing on a concentration table. At a content of 38.3% Ti, 93.6% of it are extracted into the initial gravitational concentrate; zircon is almost completely extracted, at 6.7% content in the concentrate. The finishing scheme includes electromagnetic separation and concentration on the table of the concentrate, preliminary divided into classes +3+1 and -1 mm. As a result ilmenite concentrate is obtained with extraction of 91.3%  $TiO_2$  and its content as high as

Card 1/2

Investigating the dressing ability of...

S/137/61/000/012/025/149  
A006/A101

99.2%, and zircon concentrate with extraction of 94.9%  $ZrO_2$  and 92.5% content.

A. Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

ZALETNYY, Aleksey Fedorovich.; BUBNOV, N.A., polkovnik, red.; ANIKINA,  
R.F., tekhn. red.

[Bundeswehr; the West German armed forces are weapons of  
aggression] Bundesver; zapadnogermanskije vooruzhennye sily-orudie  
agressii. Moskva, Voen. izd-vo M-va obr. SSSR, 1958. 144 p.  
(MIRA 11:12)

(Germany, West--Army)

ZALETOV, L.

In the depths of Lake Galve. Voen.znan. 39 no.10:34 0 '63.  
(MIRA 16:11)

ZALETOV, L.

Sport of the strong and brave. Voen. znan. 40 no.2:40-41 F '64.

(MIRA 17:2)

1. Chlen prezidiuma Federatsii podvodnogo sporta SSSR.

ZALETOV, L.

Toward new frontiers in underwater sport. Voen.znan. 38 no.5:31-  
32 My '62. (MIRA 15:5)

1. Chlen prezidiuma Federatsii podvodnogo sporta SSSR.  
(Diving, Submarine)

ZALETOV, Lev Mikhaylovich; GRIGOR'YEVA, A.I., red.; FAYNSHMIDT, F.Ya.,  
tekhn. red.

[Lifesaving devices and their use] Spasatel'nye sredstva i ikh prime-  
nenie. Moskva, Izd-vo DOSAAF, 1960. 53 p. (MIRA 14:10)  
(LIFESAVING APPARATUS)

ZALETOV, V.M., starshiy prepodavatel'

Determining heat flow in ship piping by the unsteady conditions method.  
Sud. sil. ust. no.2:163-168 '63. (MIRA 17:1)

1. Odesskoye vyssheye inzhenernoye morskoye uchilishche.



ZALETOV, V.M., inzh.

Temperature in engine and boiler rooms during tropical voyages.  
Sudostroenie 29 no.2:22-27 F '63. (MIRA 16:2)  
(Ships--Heating and ventilation) (Tropics--Climate)

VOLKOVA, Z.; IGNAT'YEV, M. (g.Mineral'nyye Vody, Stavropol'skogo kraya);  
ZALETOVA, T.; OPARINA, M.

~~Following the example of Valentina Gaganova. Prom.koop. 13~~  
Following the example of Valentina Gaganova. Prom.koop. 13  
no.11:5-6 N '59. (MIRA 13:3)

1. Starshiy instruktor orgrevisionnogo otдела oblpromsoвета,  
Kaliningrad (for Zaletova). 2. Chlen partbyuro arteli "Pobeda,"  
g.Tushino, Moskovskoy oblasti (for Oparina).  
(Socialist competition)

~~ZALETOVA, T.~~

Following the example of the best. Prom.koop. 13 no.624 Je '59.  
(MIRA 12:9)

1. Instruktor orgrevizionnogo otdela oblpromsoвета, g.Kaliningrad.  
(Kaliningrad--Cooperative societies)  
(Labor productivity)

PUSHKAREV, B.N., nauchnyy sotrudnik; ZALETOV, Yu.K., inzh.

Forced oscillations in trackside signal devices. Avtom, telemekh.  
svyaz' 3 no.10:11-12 0 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozh-  
nogo transporta Ministerstva putey soobshcheniya (for Pushkarev).  
(Railroads--Signaling)

USSR / Human and Animal Morphology, (Normal and Pathological):  
Cardiovascular System.

5

Abs Jour : Ref Zhur - Biol., No 21, 1958, No 97088

Author : Zaletova, Z. M.

Inst : Omsk Medical Institute

Title : Some Topographo-Anatomical Peculiarities of the Vertebral  
Artery.

Orig Pub : Tr. Omskogo med. in-ta, 1957, No. 23, 73-76

Abstract : On 17 cadavers, by the method of dioptrography, different  
variations of the vertebral artery distribution are described,  
which may be exploited in surgical interventions in the  
human occipital region.

Card 1/1

ZALETSKAS, G., kand.tekhn.nauk

Investigating possibilities for improving the performance of flax  
pulling machinery. Trudy MIMESKH 6:291-300 '59. (MIRA 14:5)  
(Flax—Harvesting)

ZALETSKAS, G. A.

ZALETSKAS, G. A. "Investigation of Ways of Improving Certain Operational Indexes of Flax-Breaking Equipment." Min Higher Education USSR. Moscow Inst of Mechanization and Electrification of Agriculture imeni V. M. Molotov. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

SO: Knizhnaya Letopis', No. 19, 1956.

SHIMANSKAYA, N. S.; ZELETSKIY, E. G.

Mean energies of electron and positron beta-spectra. Atom. energ.  
17 no.1:9-17 J1 '64. (MIRA 17:7)



L 63197-65 EWT(n)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) AKA/-  
ACCESSION NR: APX18520 HAWAII, HI NR/0306/65/000/000/0000/00, 2  
009.00 - 190.00 21.00 21.00

AUTHORS: Popov, M. V. (Engineer); Braun, M. P. (Doctor of technical sciences);  
 ... (Candidate of technical sciences); Sokol, M. B. (Candidate of  
 technical sciences); Malashuk, I. I. (Candidate of technical sciences,

TABLE: Optimum composition and thermal treatment for steels for tractor parts

SOURCE: Mashinostroyeniye, no. 4, 1965, 49-52

TOPIC TAGS: steel, mechanical property, carbon steel, machine part, stress measurement, heat treatment/ 40KHN steel, 30KHQA steel, 45Kk steel, 4502 steel

**ABSTRACT:** Four kinds of steel (40KhN, 30KhGSA, 45Kh, 45G2) for connecting rod bolts and three kinds (45Kh, 45G2, improved 45) for connecting rods were studied. Numerical data are presented in text and are tabulated. For bolts the design stipulated a HB 288-311 hardness, 109-95 kg/cm<sup>2</sup> tensile strength, 11.4-8.6 kg/cm<sup>2</sup> impact toughness. These properties can be obtained in 40KhN steel by adding

Card 1/3

ACCESSION NR: AP5018520

resulted in a martensite structure throughout in 40KhN, and a martensite-bainite mixture at the centers of 45Kh and 45G2. The design of the D-54 engine stipulated a 110 kg/mm<sup>2</sup> tensile strength. Steels with a nickel content performed better than the heat-treated 40KhN. The fatigue limit was 50 kg/mm<sup>2</sup> for 45G2, 46 kg/mm<sup>2</sup> for 30KhGSA, and 44 kg/mm<sup>2</sup> for 40KhN and 45Kh. In view of the pulsating character of the stresses in bolts, a total stress of 42 kg/mm<sup>2</sup> and an initial stress of 20 kg/mm<sup>2</sup> are recommended. Fatigue failures in service were investigated. Steel 30KhGSA showed a lower susceptibility to stress concentration. A 4-year survey

63197-65

ACCESSION NR: AP5018520

sheet in it. Approved form possesses even better mechanical properties. Orig. a  
has: 4 tables.

ASSOCIATION: none

ENCL: 00

SIB CODE: MM, IE

NO REF SOV: 000 OTHER: 000

Bolsheviks

Card 3/3

ZALETSKIY, G. I.

"Influence of the Size Factor on the Magnitude of Metal Wear in Agricultural Machine Parts." Cand Tech Sci, Kiev Agricultural Inst, Min Culture USSR, Kiev, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

BRAUN, M.P., doktor tekhn.nauk; VINOKUR, B.B., inzh.; SEVRUK, B.A., inzh.;  
EL'KINA, T.P., inzh.; SOKOL, A.H., kand.tekhn.nauk; ZALETSKIY, G.I.,  
kand.tekhn.nauk; MIROVSKIY, E.I., inzh.

Replacing the chrome-nickel steel 20KhNZA with the carburizing steel  
20KhGSVT. Mashinostroenie no.3:58-62 My-Je '62. (MIRA 15:7)  
(Steel alloys--Testing)

137-58-4-8323

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 287 (USSR)

AUTHOR: Zaletskiy, G.I.

TITLE: Effect of the Factor of Scale on the Degree of Wear of Metals Under Sliding Friction (Vliyaniye masshtabnogo faktora na velichinu iznosa metallov pri trenii skol'zheniya)

PERIODICAL: Tr. 1-y nauchno-tekhn. konferentsii. Kiyevsk. in-t grazhd. vozdushn. flota. Moscow, 1956, pp 169-186

ABSTRACT: Investigations have shown that when all the parameters affecting magnitude of wear remain unchanged, the diameter (D) of a friction collar affects the course of the process of wear of the specimen and the degree to which it is worn away. At identical linear rates of slide and unit pressures, a regular decline is observed in the magnitude of the reduced wear of the test specimen in friction with a disk having a large D friction collar. As the D of the friction ring varies (within the limits of the tested D of 25, 50, 75, 100, 150, and 200 mm), the rate of wear of the specimen varies by 16-47%, with the main type of wear remaining the same. As the D of the friction collar on the disk being subjected to wear changes, transitions to other types of

Card 1/3

Effect of the Factor of Scale (cont.)

137-58-4-8323

wear occur, all other conditions of friction being equal, and this sharply changes the magnitude of the wear. A change in the dimensions of the D of the test specimens (within the limits of the D tested: 2.5, 5.0, 7.5, 10.0, and 15.0 mm) results in a change of the magnitude of the wear in various variants of the tests (depending upon the material of the friction disk and the rate of slide) from a few per cent to several hundred times, and also of the depth of deformation of the rubbing metal surfaces at various rates of slide (2-8 times) and in the intensity of the effects of secondary types of wear, while in some modifications of the tests the chief form of wear also underwent change. Investigations of the relationship of the temperature of the friction surface of the specimens to their D showed that the temperature of the friction surfaces increased with increase in D. This is explained by the fact that the ratio of the surface area of the specimen to its friction surface differs in specimens of different D, and that heat removal from the surface of friction in specimens of large D is poorer than in specimens of lesser D. Investigations of the relationship of the degree of wear of the test sample to its D under lubricated friction of Nr 10 and Nr U8A friction disks demonstrates a general tendency to an increase in reduced wear as the D of the test specimen increases. As with solid friction, this is explained by an increase in the temperature of the rubbing surfaces as the D of the test specimens increases. As temperature

Card 2/3

Effect of the Factor of Scale (cont.)

137-58-4-8323

As the lubricant liquefies, loses its lubricating properties, and burns off, resulting in increased wear. An investigation of the relationship of the degree of wear of the test specimen to the magnitude of its  $W$  on lubricated friction with a disk of gray cast iron shows that as the  $D$  of the specimen increases the reduced wear declines. This is explained by the distinctive lubricating properties of graphite, which are retained even when temperature is significantly increased.

1. Metals--Abrasion--Scale factors
2. Metals--Friction

N. T.

Card 3/3



POPOV, N.V., inzh.; BRAUN, M.P., doktor tekhn.nauk; VINOKUR, B.B., kand.tekhn.nauk; SOKOL, A.N., kand.tekhn.nauk; ZALETSKIY, G.I., kand.tekhn.nauk

Optimum composition and heat-treatment conditions of steels for tractor parts. Mashinostroenie no.4:49-52 JI-Ag '65.

(MIRA 18:3)

2C

L 34557-65 ENT(m)/ENT(w)/ENT(d)/T/ENT(t)/ENT(b) MJW/JD

ACCESSION NR: AR5004785

S/0137/64/000/010/1046/1046

SOURCE: Ref. zh. Metallurgiya, Abs. 201299

AUTHOR: Braun, M. P.; Vinokur, B. B.; Sevruk, B. A.; El'mina, T. P.; Sokol, A. M.; Zolotarev, G. I.; Mirovskiy, E. I.

TITLE: Properties of 20KhGSVT non-nickel steel

CITED SOURCE: Sb. Legirovaniye staley, Kiyov, Gostekhizdat USSR, 1963, 32-40

TOPIC TAGS: metal mechanical property, steel hardening, temperature dependence, nickel economy, cementation, heat treatment, 20KhGSVT steel, 20KhNZA steel

TRANSLATION: A study of the effect of hardening temperature (880, 930, and 980°) on the mechanical properties of 20KhGSVT cemented steel (containing in %: 0.2 carbon, 1.26 manganese, 1.09 chromium, 0.87 silicon, 0.82 tungsten, 0.09 titanium) showed that with an increase in this temperature the strength properties increase while ductility decreases. Tempering of normalized samples up to 300°

Card 1/2

L 34557-65

ACCESSION NR: AR5004785

leads to practically no change in  $\sigma_{\text{max}}$ , while tempering up to  $400^\circ$  /Translator's note: Word apparently missing here,  $\sigma_{\text{max}}$ . After tempering at temperatures above  $400^\circ$  the strength properties decrease while malleability and ductility increase. After hardening from  $900^\circ$  and tempering at  $500$  and  $600^\circ$  a slight tendency towards temper brittleness develops. Tempering at  $650^\circ$  leads to a 35% decrease in  $\sigma_{\text{K}}$  as a result of slow cooling. However, even in the brittle state the steel has an  $\sigma_{\text{K}}$  equal to  $8-9 \text{ kg/cm}^2$ . After hardening from  $900^\circ$  and tempering at  $600^\circ$ ,  $\sigma_{\text{K}}$  is greater than  $4 \text{ kg/cm}^2$  at  $-115^\circ$ . A study of the tendency of 20KhGSVT steel toward cementation under various conditions showed that it has more of a tendency toward cementation than 20KhNZA steel. It is recommended that 20KhGSVT steel be substituted for 20KhNZA steel. I. Tulupova.

SUB CODE: MM

ENCL: 00

Cord 2/2

L 63197-65 ENT(a)/EWA(d)/ENP(v)/T/EWP(t)/EWP(k)/EWP(s)/EWP(h)/EWA(c)

ACCESSION NR: AP5018520 WJW/JB/HM

UR/0304/65/000/004/0049/0052  
669.115-194121.802.621.827

AUTHORS: Popov, N. V. (Engineer); Braun, M. P. (Doctor of technical sciences); Vinokur, B. B. (Candidate of technical sciences); Sokol, A. N. (Candidate of technical sciences); Zaletskiy, O. I. (Candidate of technical sciences)

TITLE: Optimum composition and thermal treatment for steels for tractor parts

SOURCE: Mashinostroyeniye, no. 4, 1965, 49-52

TOPIC TAGS: steel, mechanical property, carbon steel, machine part, stress measurement, heat treatment, LOKHN steel, 30KhGSA steel, 45Kh steel, 45G2 steel

ABSTRACT: Four kinds of steel (LOKHN, 30KhGSA, 45Kh, 45G2) for connecting rod bolts and three kinds (45Kh, 45G2, improved 45) for connecting rods were studied. Numerical data are presented in text and are tabulated. For bolts the design stipulated a HB 288-314 hardness, 109-95 kg/cm<sup>2</sup> tensile strength, 11.4-3.6 kg/cm<sup>2</sup> impact toughness. These properties can be obtained in LOKHN steel by oil hardening and tempering at 500-550C. Similar properties can be obtained in 45Kh, 45G2, and 30KhGSA with an increased C content. Oil hardening of 18-mm diameter specimens

Card 1/3

L 63197-65

ACCESSION NR: AP5018520

resulted in a martensite structure throughout in 40KhN, and a martensite-bainite mixture at the centers of 45Kh and 4502. The design of the D-54 engine stipulated a 110 kg/mm<sup>2</sup> tensile strength. Steels with a nickel content performed better than the heat-treated 40KhN. The fatigue limit was 50 kg/mm<sup>2</sup> for 4502, 46 kg/mm<sup>2</sup> for 30KhGSA, and 44 kg/mm<sup>2</sup> for 40KhN and 45Kh. In view of the pulsating character of the stresses in bolts, a total stress of 42 kg/mm<sup>2</sup> and an initial stress of 20 kg/mm<sup>2</sup> are recommended. Fatigue failures in service were investigated. Steel 30KhGSA showed a lower susceptibility to stress concentration. A 4-year survey of four kinds of bolts in actual service indicates that 45Kh and 4502 are suitable for medium power engines, and 30KhGSA for higher powers. For connecting rods a HB 229-255 hardness was required. This was obtained with tempering at 570-6300. The other requirements were: the tensile strength was 79-86 kg/mm<sup>2</sup>, the yield point of 67-79 kg/mm<sup>2</sup>, elongation per length unit of 16-18%, section contraction of 60-65%, impact toughness of 11-13 kg.m/cm<sup>2</sup>. After normalisation, the improved 45Kh and 4502 answered these specifications. The connecting rods were tested in special testing machines. The fatigue limit of 4502 was only 7%, and of 45Kh only 20% lower than that of the improved 45 steel. A 1-year survey of nearly 4000 operating tractors led to the conclusion that 4502 with a simplified thermal treatment can be successfully and economically used for connecting rods. The same

Card 2/3

L 63197-65

ACCESSION NR: AP5018520

steel in its improved form possesses even better mechanical properties. Orig. art.  
has: 4 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IN

NO REF SOV: 000

OTHER: 000

Bolting 18 -

*mlh*  
Card 3/3

L 03769-67 EWT(d)/EWT(m)/I/EWP(t)/ETI IJP(c) JD/DJ  
ACC NR: AP6019852 (A, N) SOURCE CODE: UR/0418/65/000/001/0079/0081

AUTHOR: Popov, N. V. (Engineer); Braun, M. P. (Doctor of technical sciences); Sokol, A. N. (Candidate of technical sciences); Zaletskiy, T. I. (Candidate of technical sciences) 47  
44  
B

ORG: None

TITLE: High-quality steel for tractor transmission gears 17

SOURCE: Tekhnologiya i organizatsiya proizvodstva

TOPIC TAGS: nickel steel, tempering, transmission gear, contact stress, tensile strength

ABSTRACT: The authors discuss the development of a series of grades of steel containing small amounts of nickel and therefore less expensive than chrome-nickel steel. The new grades have been used and tested at the Department of Metal Technology of USMA and the Central Plant Laboratory of the Volgograd Tractor Plant. This Plant Laboratory has proposed a new grade of steel\* (251 KhGSNT) with the following composition (in %): C 0.20-0.26, Mn 1.0-1.3, Si 0.8-1.0, Cr 1.1-1.4, Ni 0.9-1.2, Ti 0.05-0.10, P less than 0.04 and S less than 0.05. The mechanical properties of this new steel were compared with those of 20KhNZA high-nickel steel after normalization by pseudocarbonization, quenching and low-temperature tempering. This comparison showed that the mechanical

Card 1/2 \* 20XN3A

\*\* 25XGCHT

UDC: 669.15:621.633

L 03769-67

ACC NR: AP6019852

3  
properties of the new grade of steel are superior to those of 20KhNZA. Additional tests were carried out to determine the applicability of the new grade of steel in making parts, and in particular its ability to withstand heavy loads such as those which occur in tractor transmissions. The sensitivity of this steel to concentrated stresses was studied by bending circular specimens with annular cuts. Analysis of the results shows that 25KhGSNT steel is less sensitive to concentrated stresses than 20KhNZA steel. The contact strength of the steel was also tested on a three-roller machine made by the Institute of Mechanics of the Academy of Sciences UkrSSR. Stresses at the point of contact during testing were 200-450 kg/mm<sup>2</sup> with a test base of 10<sup>7</sup> cycles. The tensile strength of the new steel is 300 kg/mm<sup>2</sup> while that of 20KhNZA is 250 kg/mm<sup>2</sup>. Products made from 25KhGSNT steel require moderate cooling after normalization. This steel has been used by the Volgograd Tractor Plant for several series of gears in the transmissions of the DT-54A and DT-75 tractor engines. Tests of these gears under operating conditions show satisfactory results. The new grade of steel gives a savings of 20-25 kg of nickel per ton of steel, an economy of more than 2 kg of nickel per transmission. Orig. art. has: 3 tables.

SUB CODE: 11, 13/ SUBM DATE: none

Card 2/2



ACC NR: AT7003886

SOURCE CODE: UR/0000/66/000/000/0251/0260

AUTHOR: Zalevskiy, B. K.; Lashkarev, G. V.; Sobolev, V. V.; Syrbu, N. N.

ORG: none

TITLE: Experimental studies of the structure of energy bands in certain rare earth element chalcogenides

SOURCE: AN BSSR. Institut fiziki tverdogo tela i poluprovodnikov. Khimicheskaya svyaz' v poluprovodnikakh i termodinamika (Chemical bond in semiconductors and thermodynamics). Minsk, Nauka i tekhnika, 1966, 251-260

TOPIC TAGS: ~~compound-semiconductor~~, refractory compound, sulfide, selenide, oxytelluride, rare earth compound, semiconductor band structure, reflection spectrum, ENERGY BAND STRUCTURE.

ABSTRACT: Reflection spectra in the 200—1200 mμ range of seven rare earth element chalcogenides and three oxytellurides have been obtained at 293°K and interpreted in terms of the theory of energy band structure of semiconductors. The compacted polycrystalline samples used in the experiments were prepared by sintering at 1000—1750°C powdered components in hydrogen sulfide or selenide atmosphere or in evacuated quartz ampules. Reflection spectra in the region of energy greater than the minimum forbidden energy gap ( $E_g$ ) were similar for all the compounds studied. This fact indicates a great similarity in the structure of energy bands between chalcogenides and oxytellurides of the rare earth elements. Structural peculiarities

Card 1/2

UDC: none

ACC NR: AT7003886

of the  $M_2X_3$  and MX compound semiconductors were derived from the weak reflection peaks of  $Ce_2Si_3$ ,  $Nd_2Si_3$ , and  $EuSe$  and from the reflection peaks in the 240—420 m $\mu$  region of  $Sm_2S_3$  and sesquiselenides of La, La, PR, Nd, and Sm. Orig. art. has: 4 figures, 1 table, and 3 formulas. [JK]

SUB CODE: 07/ SUBM DATE: 20Aug66/ ORIG REF: 011/ OTH REF: 010/

Card 2/2

ZAIEVSKIY, N.I.; KULIKOVA, A.N.; KUL'VINOVA, L.A.; SHISHMAREVA, O.Ya.;  
YAKOVLEVA, M.V.

Porous structure and physicochemical properties of natural  
sorbents of some deposits of Far East. Trudy DVFAN SSSR.  
Ser.khim. no.7:26-30 '65. (MIRA 18:12)

CHIEVSKIY, O.K., kapitan meditsinskoy sluzhby

Determination of the intactness of the bone with a modernized phono-  
endoscope-osteoscope. Vopr. med. khim. no. 7:84 '64. (MIRA 18:5)

ZALETSKIY, V.N.

Screw-driven sizing machine. Kons.i ov.prom. 15 no.9:10-12  
S '60. (MIRA 13:9)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy  
promyshlennosti.  
(Canning and preserving--Equipment and supplies)

ZALETSKIY, V.M.

Refrigeration of green peas in railroad refrigerator cars.  
Kons.1 ov.prom. 15 no.7:12-15 J1 '60. (MIRA 13:6)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy  
promyshlennosti.  
(Moldavia--Peas) (Refrigerator cars)

ZALETSKIY, V.N.  
ZALETSKIY, V.N.

Increasing labor productivity in the process of final cleaning  
of raw products in the dehydrated vegetables industry. Kons.  
1 ov. prom. 12 no.11:21-22 N '57. (MIRA 11:1)

1. Gryazinskiy kombinat pishchevykh kontsentratorov.  
(Vegetables---Drying)

ZALETSKIY, V.H.; SHABALINA, N.S.; YARKINA, A.F.

Automatic apparatus for deaeration and pasteurisation of fruit and berry juices. Kons. i ov. prom. 13 no.2:14-17 F '58. (MIRA 11:2)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Food industry--Equipment and supplies)



SVYATOSLAVSKAYA, T.N.; ZALETSKIY, V.H.; RYZHOVA, M.S., red.; YUROV,  
E.M., tekhn.red.

[Increasing the productivity of belt dryers; practices of the  
Gryazi Food Concentrates Combine] Uvelichenie proizvoditel'nosti  
lentochnykh sushilok; iz opyta raboty Griazinskogo kombinata  
pishchevykh kontsentratorov. Moskva, Pishchepromizdat, 1956. 17 p.  
(MIRA 12:5)

(Gryazi--Food, Concentrated--Drying)

VINOKUROV, A.A.; ZALETYAYEV, V.S.; KISHCHINSKIY, A.A.; MIKHAYEV, A.V.;  
SABINEVSKIY, B.V.; FEDORENKO, A.P.; SHAPOSHNIKOV, L.K.

Wintering of water birds in the shore area of the Black Sea and  
the Sea of Azov in the winter of 1957/58. Migr. shiv. no. 2:45-  
59 '60. (MIRA 13:12)

1. Komissiya po okhrane prirody AN SSSR.  
(Black sea region--Water birds)  
(Azov region--Water birds)

ZALETYAEVA, R.P., kand.tekhn.nauk

Creep resistance of EI211 steel alloyed with titanium and  
niobium. [Trudy] TSMIITMASH 105:176-183 '62. (MIRA 15:8)  
(Creep of steel) (Steel alloys—Metallurgy)

2. A. P. VINSKIY

Multipurpose antitoxin for immunization against infectious infections. A. V. Vygodchikov, S. A. Zakhvinskaya, Z. K. Volkova, N. S. Kashintseva, E. A. Gilev, B. V. Vlasova, I. V. Bulanova, V. A. Blagoveshchenskii, L. Ya. Malenkov, I. P. Kuznetsov, and I. N. Vinogradov. U.S.S.R. 103,877. Cultures of the corresponding pathogenic microorganisms grown separately on a casein-vegetable nutrient medium obtained by hydrolysis with mushroom protein. The toxin is altered, detoxicated, acid hydrolyzed, and the antitoxin is prepared in a concentrated form, dissolved in a phosphate buffer, adsorbed on  $Al_2O_3$ , treated, and the several immatures combined. M. 11

ZAIEVSKAYA, A. A.

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mekhanicheskiy zavod (for Shashkin) 4. Rostovskiy gosudarstvennyy  
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